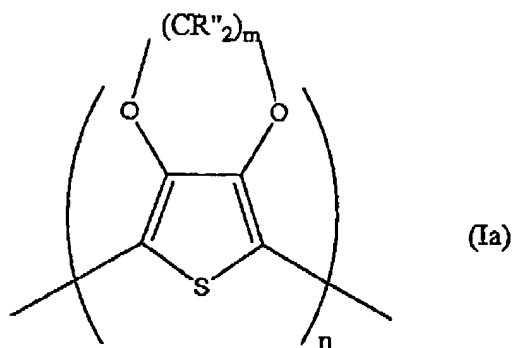


Listing of Claims

1. (Currently Amended) An electrically conductive composition comprising an aqueous dispersion of at least one polythiophene and at least one colloid-forming polymeric acid, wherein said polythiophene comprises the Formula I(a) or Formula I(b):

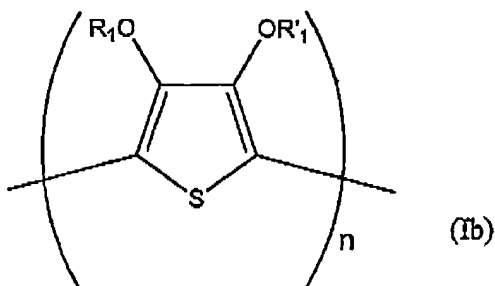


wherein:

R'' is the same or different at each occurrence and is selected from the group consisting of hydrogen, alkyl, heteroalkyl, alkenyl, heteroalkenyl, alcohol, amidosulfonate, benzyl, carboxylate, ether, ether carboxylate, ether sulfonate, sulfonate, and urethane, with the proviso that at least one R'' is not hydrogen,

m is 2 or 3, and

n is at least about 4; or



Case No. UC0362USNA
Application No. 10/802,704

wherein:

R'_1 and R_1 are independently selected from the group consisting of hydrogen and alkyl, or

R'_1 and R_1 taken together form an alkylene chain having 1 to 4 carbon atoms, which may optionally be substituted by alkyl or aromatic groups having 1 to 12 carbon atoms, or a 1,2- cyclohexylene radical, and

n is at least about 4.

2. (Currently Amended) A composition according to Claim 1, wherein said colloid-forming polymeric acid comprises an acid selected from the group consisting of a polymeric sulfonic acids, polymeric phosphoric acids, polymeric phosphonic acids, polymeric carboxylic acids, polymeric acrylic acids, and mixtures thereof.

3. A composition according to Claim 2, wherein said colloid-forming polymer acid comprises a fluorinated polymeric sulfonic acid.

4. A composition according to Claim 3, wherein said polymeric sulfonic acid is perfluorinated.

5. (Currently Amended) A composition according to Claim 1, further comprising ~~an~~ at least one additional material selected ~~at least one~~ from the group consisting of polymers, colloid-forming polymeric acids, dyes, carbon nanotubes, metal nanowires, metal nanoparticles, carbon nanoparticles, carbon fibers, carbon particles, graphite fibers, graphite particles, coating aids, organic conductive inks, organic conductive pastes, inorganic conductive inks, inorganic conductive pastes, charge transport materials, semiconductive inorganic oxide nano-particles, insulating inorganic oxide nano-particles, piezoelectric nano-particles, pyroelectric nano-particles, ferroelectric oxide nano-particles, piezoelectric polymers, pyroelectric polymers, ferroelectric oxide polymers, photoconductive oxide nanoparticles, photoconductive oxide polymers, dispersing agents, crosslinking agents, and combinations thereof.

6. A composition according to Claim 1, further comprising at least one co-dispersing liquid.

7. (Currently Amended) A composition according to Claim 6, wherein the co-dispersing liquid is selected from the group consisting of ethers, cyclic ethers, alcohols,

Case No. UC0362USNA
Application No. 10/802,704

alcohol ethers, ketones, nitriles, sulfides, sulfoxides, amides, amines, carboxylic acids, and combinations thereof.

8. (Currently Amended) A composition according to Claim 6, wherein the co-dispersing liquid is at least one liquid selected from the group consisting of n-propanol, isopropanol, methanol, butanol, 1-methoxy-2-propanol, dimethylacetamide, n-methyl pyrrolole, 1,4-dioxane, tetrahydrofuran, tetrahydropyran, 4 methyl-1,3-dioxane, 4-phenyl-1,3-dioxane, 1,3-dioxolane, 2-methyl-1,3-dioxolane, 1,3-dioxane, 2,5-dimethoxytetrahydrofuran, 2,5-dimethoxy-2,5-dihydrofuran, 1-methylpyrrolidine, 1-methyl-2-pyrrolidinone, dimethylsulfoxide, and combinations thereof.

9 -28. (Withdrawn)